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EXAMINER	
WOZNIAK, JAMES S	

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/017,435	PHILLIPS ET AL.	
	Examiner	Art Unit	
	JAMES S. WOZNIAK	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24 and 36-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24 and 36-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the office action from 11/24/2008, the applicant has submitted a Request for Continued Examination, filed 12/31/2008, amending independent claim 1, while adding claims 37-38 and arguing to traverse the art rejection based on the limitation regarding a central repository utilized in a run-time environment *(Amendment, Pages 7-9 and 11)*. The applicant's arguments have been fully considered but are moot with respect to the new grounds of rejection further in view of Kredo et al *(U.S. Patent: 6,182,045)*.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claim 38** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Although **claim(s) 38** appear to fall within a statutory category *(i.e., apparatus)*, claim(s) 38 encompass nothing more than logic/software modules as per the specification *(remote central repository is simply a data structure that does not reference any type of hardware-based storage device, the interface is a Java Bean, and claimed "software component", Specification, Page 11)*. Thus, claim(s) 38 are directed to non-statutory subject matter because their scope

includes a computer program embodiment, an abstract data structure which does not fall within one of the four statutory categories *(i.e., it is directed to a program per se)*. See also MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 37** is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: a memory storing a program that is executed by the claimed processor to enable it to perform its associated functions. A processor cannot perform its function without accessing some set of stored instructions.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1, 3-11, 16-24, and 36-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marx et al *(U.S. Patent: 6,173,266)* in view of Kredo et al *(U.S. Patent: 6,182,045)*.

With respect to **Claim 1**, Marx discloses:

Utilizing at least one generic software component to develop a specific voice application, including invoking at least one generic dialog asset from a repository *(Col. 3, Lines 28-39; Col. 4, Lines 21-33; and Col. 6, Line 39- Col. 7, Line 3; an original predefined dialogue template used in a specific service, Col. 8, Lines 42-51; and dialogue template libraries and invoking default parameters in application development, Col. 17, Lines 7-20 and Fig. 8, Elements 810, 820, 830)*;

Deploying the specific voice application in a deployment environment separate from the development environment *(development environment libraries and service environment library Fig. 8)*, wherein the deployment includes an instance of the repository *[deployed services having default (generic) dialog templates from a baseline library (dialog instances in a service utilizing default baseline library settings that are not overridden, Col. 17, Lines 28-34) in the form of pre-recorded default prompts that are provided to a caller (Col. 4, Lines 41-43; and default apology prompts, Col. 20, Lines 42-57), default dialog configuration parameters (Col. 6, Lines 53-60), and default vocabularies (example of an implemented service conformation step using a default vocabulary, Col. 9, Lines 40-46; example of a standard default vocabulary across different services for responses that tend to be the same, Col. 11, Lines 49-55; use of a completely defined default vocabulary, Col. 18, Lines 47-56)]*; and

Invoking the at least one generic dialog asset from the repository in the deployment environment *(utilizing a predefined default dialogue module in a specific voice application service, Col. 6, Lines 53-60; Col. 8, Lines 42-51; and Col. 17, Lines 21-54)*.

Although the speech application development system taught by Marx features default dialog modules used in a deployment runtime environment and is further equipped with a means of communicating with an external data source *(communication interface/network link that connects a dialog system to remote data equipment , Col. 5, Line 49- Col. 6, Line 8; and Fig. 3, Elements 320 and 322)*, Marx does not explicitly teach that the external data source or host computer stores dialog system files that are utilized in development and runtime deployment. Kredo, however, discloses a system featuring designed IVR systems relying on a central server

that stores dialog information that is additionally accessible at run-time *(Col. 1, Lines 50-67; Col. 2, Lines 50-61; and Col. 3, Lines 8-32)*.

Marx and Kredo are analogous art because they are from a similar field of endeavor in voice application management. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Marx with the central server taught by Kredo in order to allow for universal access to dialog system files *(Kredo, Col. 1, Lines 29-30)*.

With respect to **Claim 3**, Marx shows:

The deployment environment further comprises an application server *(computer containing the designed interactive voice application, Fig. 3)*.

With respect to **Claim 4**, Marx recites:

The deployment environment further comprises a dialog control component *(Col. 6, Lines 61-64)*.

With respect to **Claim 5**, Marx recites:

The deployment environment further comprises a dialog component (Col. 6, Lines 53-60).

With respect to **Claim 6**, Marx discloses:

The deployment environment further comprises a voice application services layer *(Col. 6, Lines 23-30)*.

With respect to **Claim 7**, Marx discloses:

The deployment environment further comprises a rules integration layer *(Col. 13, Line 59- Col. 14, Line 8)*.

With respect to **Claim 8**, Marx discloses:

The deployment environment further comprises a messaging layer *(Col. 20, Lines 33-41)*.

With respect to **Claim 9**, Marx discloses:

The deployment environment further comprises a voice services layer *(Col. 6, Lines 23-30)*.

With respect to **Claim 10**, Marx discloses:

The deployment environment further comprises a detail tracking layer *(Col. 14, Line 47-Col. 15, Line 5)*.

With respect to **Claim 11**, Marx discloses:

The deployment environment further comprises an external system *(Col. 5, Lines 49-67)*.

With respect to **Claim 16**, Marx discloses:

Utilizing one or more generic software components to develop a specific voice application further comprises utilizing one or more generic software components during a design phase to develop a specific voice application *(combined dialog modules, Col. 4, Lines 21-33; and Col. 8, Lines 19-51)*.

With respect to **Claim 17**, Marx recites:

The design phase further comprises a dialog design phase *(dialog module ordering to create a call flow, Col. 8, Lines 19-51)*.

With respect to **Claim 18**, Marx recites:

The design phase further comprises a voice coding phase *(Col. 16, Lines 11-25)*.

With respect to **Claim 19**, Marx discloses:

The design phase further comprises a rules definition phase *(Col. 20, Lines 17-32; Col. 13, Lines 59-67)*.

With respect to **Claim 20**, Marx recites:

The design phase further comprises a phase wherein custom prompts are generated *(Col. 12, Line 43- Col. 13, Line 10)*.

With respect to **Claim 21**, Marx recites:

The design phase further comprises a phase wherein custom grammars are developed *(Col. 17, Lines 35-42; and Col. 18, Line 47- Col. 19, Line 7)*.

With respect to **Claim 22**, Marx discloses:

The design phase further comprises a phase wherein standard prompts are utilized to generate the specific voice user interface *(Col. 18, Lines 30-45)*.

With respect to **Claim 23**, Marx discloses:

The design phase further comprises a phase wherein standard grammars are sued to generate the specific voice user interface *(Col. 18, Lines 47-56)*.

With respect to **Claim 24**, Marx discloses:

The design phase further comprises a system test phase *(Col. 14, Lines 9-24)*.

With respect to **Claim 36**, Marx discloses the use of a default dialog module, including voice data, in a deployment environment, as applied to claim 1, while Kredo teaches that dialog information can be retrieved in a runtime environment from the central server repository *(Col. 1, Lines 50-67; Col. 2, Lines 50-61; and Col. 3, Lines 8-32)*.

With respect to **Claim 37**, Marx discloses:

A repository comprising a generic dialog asset, wherein a generic software component is used to develop the voice application which accesses the generic dialog asset via a interface*(Col. 3, Lines 28-39; Col. 4, Lines 21-33; and Col. 6, Line 39- Col. 7, Line 3; an original predefined dialogue template used in a specific service, Col. 8, Lines 42-51; and interfaced dialogue template library database and invoking default parameters in application development, Col. 17, Lines 7-20 and Fig. 8, Elements 810, 820, 830)*; and

A processor to process the voice application *(computer processor that runs the voice application, Col. 5, Lines 20-39; and Col. 2, Lines 14-22)* through a method comprising:

Accessing the repository at runtime *(accessing a predefined default dialogue module in a specific executed voice application service, Col. 6, Lines 53-60; Col. 8, Lines 42-51; and Col. 17, Lines 21-54)*; and

Invoking, at runtime, the generic dialog asset from the remote central repository *(utilizing a predefined default dialogue module in a specific voice application service deployment, Col. 6, Lines 53-60; Col. 8, Lines 42-51; and Col. 17, Lines 21-54)*.

Although the speech application development system taught by Marx features default dialog modules used in a deployment runtime environment and is further equipped with an interfacing means of communicating with an external data source *(communication interface/network link that connects a dialog system to remote data equipment , Col. 5, Line 49- Col. 6, Line 8; and Fig. 3, Elements 320 and 322)*, Marx does not explicitly teach that the external data source or host computer stores dialog system files that are utilized in development and runtime deployment. Kredo, however, discloses a system featuring designed IVR systems

relying on a central server that stores dialog information that is additionally accessible at run-time *(Col. 1, Lines 50-67; Col. 2, Lines 50-61; and Col. 3, Lines 8-32)*.

Marx and Kredo are analogous art because they are from a similar field of endeavor in voice application management. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Marx with the central server taught by Kredo in order to allow for universal access to dialog system files *(Kredo, Col. 1, Lines 29-30)*.

Claim 38 is similar in scope to claim 37, and thus, is rejected under similar rationale.

8. **Claims 2 and 12-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marx et al in view of Kredo et al and further in view of Uppaluru *(U.S. Patent: 5,915,001)*.

With respect to **Claim 2**, Marx in view of Kredo teaches the method for designing an interactive speech application utilizing a remote central repository as applied to Claim 1. Marx in view of Kredo does not specifically suggest that a deployment environment for the speech application utilizes a voice gateway, however, Uppaluru teaches the use of a voice gateway in an interactive voice response system *(Col. 4, Lines 38-51; and Col. 6, Lines 6-46)*.

Marx, Kredo, and Uppaluru are analogous art because they are from a similar field of endeavor in interactive voice interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Marx in view of Kredo with the voice gateway taught by Uppaluru to provide a means of accessing additional Internet data through an interactive voice response system *(Uppaluru, Col. 1, Line 39- Col. 2, Line 19; Col. 4, Line 38- Col. 5, Line 2)*.

With respect to **Claim 12**, Marx further discloses a speech recognition engine *(Col. 7, Lines 29-46)*. Also, Uppaluru teaches a voice command interpreter *(Col. 6, Lines 24-46)*.

With respect to **Claim 13**, Uppaluru further teaches a telephone interface *(Col. 6, Lines 24-30)*.

With respect to **Claim 14**, Uppaluru teaches a means for providing prompts to a user (Col. 6, Lines 24-46, while Marx teaches that prompts may be generated using a speech synthesizer *(Col. 18, Lines 30-45)*.

With respect to **Claim 15**, Uppaluru teaches ASR implemented at a voice gateway *(Col. 16, Line 50- Col. 18, Line 15)*.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Primary Examiner, Art Unit 2626